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Accidents.

Safety on the farm is mostly home made. By S. H. McCrory. Washington, D.C., U.S. Department of agriculture, 1939. 12p. Mimeographed.

We need to cut our accident rate. Wallaces' farmer and Iowa homestead. v.64,no.5. March 11, 1939. p.5.
Farming is a dangerous business, according to national safety records.

Agricultural Engineering.

Suggested reorganisation of German agricultural engineering: editorial. Implement and machinery review. v.64,no.767. March 1, 1939. p.1088-1089.

Weaknesses of German agricultural engineering today: editorial. Implement and machinery review. v.64,no.767. March 1, 1939. p.1089. Any firm which can be sure of securing its quota of material is assured of orders for farm implements and machinery. For there is dearth of such implements and machines in Germany, to extent that any firm making them, is certain to get orders for whole of its output, however imperfect their production and types may be. It is clear that German agricultural engineering is being "prepared" for some drastic change, since, it is unequivocably stated that standardisation and cheaper production are as inevitable as they are indispensable, and that they are unattainable with industry as unwieldy as present one. Concentrated production in hands of more reputable firms is evidently solution that will be advocated. Confusing number of patterns, must be reduced even then, as otherwise it would be futile to plan cheaper output. But, at same time, it is demanded in this "thinning-out" process that some discrimination be shown, otherwise implements and machines imperatively necessary for certain classes of soil and operations will be thoughtlessly excluded.

Agriculture.

Annual report for the fiscal year ending November 30, 1938. Amherst, Mass., 1939. 104p. Massachusetts agricultural experiment station. Bulletin no.355.

Agriculture. (Cont'd).

Annual report of the agricultural experiment station, University of Puerto Rico, fiscal year 1937-38. San Juan, P.R., 1939. 114p.

Crop costs as figured by the Department of Agriculture. Farm implement news. v.60,no.6. March 23, 1939. p.27.

Eighth biennial report, Michigan state department of agriculture for the fiscal years ending June 30, 1937, and June 30, 1938. Lansing, Mich., Franklin DeKleine co., 1939. 141p.

Farm purchasing power near 1929 level. By Henry A. Wallace. Farm implement news. v.60,no.7. April 6, 1939. p.38. Statement by Secretary of Agriculture, Henry A. Wallace, at hearing of the House Committee on Agriculture.

Fifty-first annual report, 1938. Cornell university agricultural experiment station. Ithaca, N.Y., 1939. 178p.

Fifty-first annual report for the year 1938 of the Agricultural experiment station of the University of Kentucky. Part I, Report of the director. Lexington, Ky., 1939. 63p.

Fifty years of progress on Dominion experimental farms, 1886-1936. Ottawa, J. O. Patenaude....1939. 158p.

Forty-fifth annual report, Agricultural experiment station, University of Minnesota, July 1, 1937 to June 30, 1938. St. Paul, Minn., 1938. 93p.

Proceedings of the Association of Land-grant colleges and universities, fifty-second annual convention, Chicago, Ill., November 14-16, 1938. New Haven, Conn., Quinniplack press, inc., 1939. 355p.

Report of progress for year ending June 30, 1938, Maine agricultural experiment station. Orono, Me., 1938. 332p. University of Maine. Agricultural experiment station. Bulletin no.391.

Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. 199p. U.S. Department of agriculture. Office of experiment stations.

Report of the Kansas State board of agriculture, Division of water resources for the quarter ending March, 1939, containing the law relating to Dams on dry watercourses....Topeka, Kans., 1939. 24p.

Toward better agriculture. By C. B. Hutchison and S. B. Freeborn. Report of the agricultural experiment station, University of California, July 1, 1936, to June 30, 1938. Berkeley, Cal., 1938. 201p.

Agriculture. (Cont'd).

Twenty-five years of extension work under the Act of May 8, 1914. By C. W. Warburton. Washington, D.C., 1939. 5p. Mimeographed. U.S. Department of agriculture. Extension service circular 310.

Air Conditioning.

Air conditioning with ice. By J. F. Dailey. Ice and refrigeration. v.96,no.3. March, 1939. p.201-202.

Air-conditioning with reference to live-stock. London, England, 1939. 1p. Mimeographed. Science museum. Science library bibliographical series no.456.

Attic fan gives night comfort. Popular mechanics magazine. v.71,no.6. June, 1939. p.929.

How to install winter air conditioning. American builder and building age. v.61,no.5. May, 1939. p.92,96,98,100, 100B. New guide is sponsored by prominent gas companies.

Role of humidity in air conditioning and refrigeration. By Milton Kalischer. Refrigerating engineering. v.37,no.3. March, 1939. p.177-180.

Use of cooling water in air conditioning. By Walton H. Sears. New England water works association. Journal. v.52,no.4. December, 1938. p.452-460.

Belts.

Ratings tables for leather belting. By L. H. Skougor. Power plant engineering. v.43,no.5. May, 1939. p.336-338.

Building Construction.

Arc-welded steel frame used in residence construction. Canadian engineer. v.76,no.10. March 7, 1939. p.9. Welded steel frame for modern 12-room residence erected in shop-fabricated sections with boom crane and truck.

How to estimate accurately. By J. Douglas Wilson. American builder and building age. v.61,no.5. May, 1939. p.56-57,128,132.

Lumber requirements for nonfarm residential construction. By F. J. Hallauer. Washington, U.S. Govt.print.off., 1939. 39p. U.S. Department of agriculture. Miscellaneous publication no.347.

Building Construction. (Cont'd).

Residential building. By L. J. Chawner. Prepared for the Industrial committee of the National resources committee. Washington, U.S. Govt.print.off., 1939. 19p. Housing monograph series, no.1.

Welded diagonal grid framework. By Anant H. Pandya and R. J. Fowler. Engineering news-record. v.122,no.21. May 25, 1939. p.71-72. Structural shapes welded into diamond-grid pattern to form rigid continuous framework for roofs and floors have been used with considerable economy in England. Both plane and spatial grids are possible, latter spanning large areas.

Building Materials.

Improved and cheaper building materials. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.142-143.

Concrete.

Concrete manual. 2d ed. Denver, Colorado, U.S. Bureau of reclamation, 1939. 454p.

Fundamentals of good concrete. Markets. v.3,no.4. March 16, 1939. p.7.

Sawdust concrete has advantage. Washington farmer. v.64,no.7. March 30, 1939. p.2. Makes light, strong building material.

Conservation of Resources.

Effective water conservation. "Commonwealth" agriculturist. v.9,no.3. April, 1939. p.98-100.

Unified program of land and water conservation. By H. A. Morgan. Knoxville, Tenn., Tennessee valley authority, 1939. 8p.

Cotton Gins and Ginning.

Cost of ginning. College Station, Tex., 1938. 19p. Mimeographed. Agricultural and mechanical college of Texas. Agricultural experiment station. Progress report no.570.

Effect of cleaning seed cotton on lint quality and ginning efficiency. By F. L. Gerdes and others. Washington, U.S. Govt.print.off., 1939. 64p. U.S. Department of agriculture. Technical bulletin no.663.

Ginning-research developments made during 1938. By Francis L. Gerdes and Charles A. Bennett. Cotton and cotton oil press. v.40,no.11. April 1, 1939. p.30-31,34-35,38.

Cotton Machinery.

High drafting in cotton spinning: selected references. Comp. by O. M. Shipley. Washington, D.C., 1939. 12p. Mimeographed. U.S. Bureau of agricultural economics. Economic library list no.3.

Dams.

Construction of the world's highest multiple arch dam. By W. A. Dexheimer. Reclamation era. v.28,no.8. August, 1938. p.158-162.

Flash-board pins. By Chilton A. Wright and Clifford A. Betts. American society of civil engineers. Proceedings. v.65,no.5. May, 1939. p.771-803. Formulas and stress values for design of pipe supports on automatic flashboard gates of dam spillways are developed and discussed in this paper. As result of hydraulic laboratory tests of full-size flash-boards, supplemented by mechanical tests of pipe supports and check tests of actual field installations outlined herein, data have been obtained which permit accurate predetermination of lake level at which gates of this type will automatically fall and by-pass flood water. In addition to description of tests and analysis of relations between water head, height of flash-boards, and size and spacing of pipe, results have been consolidated to serve as guide in design of flash-board installations. On this basis United States Forest Service has designed hinged flash-board gates, supported by steel pipes, and has installed them on number of their dams. Field tests, made at these dams later, yielded results that closely check laboratory tests.

Raising O'Shaughnessy dam. Engineering news-record. v.122,no.21. May 25, 1939. p.57-59. Addition to O'Shaughnessy dam on San Francisco's water supply system involved bonding new concrete to seasoned concrete already under load, and making the combination react as a homogeneous structure.

Diesel Engines.

Automotive two-cycle diesel engines. By F. G. Shoemaker. S.A.E. Journal. v.43,no.6. December, 1938. p.485-495. Paper is chiefly concerned with problem of producing engine that will use same materials, design practices, manufacturing methods, and mechanical parts as are common practice in production-type gasoline engines. Shows how change in design of blower to three-lobe helical-rotor type reduced noise and improved discharge characteristics. Discusses injection, engine-balance problems and commercial problems involved in designing engines and parts to meet wide variety of applications.

Drainage.

Drainage of agricultural land: editorial. Engineering. v.147, no.3810. January 20, 1939. p.71-72.

Electric Wiring.

Wiring: your link to electrical living. By Frank J. G. Duck. Dakota farmer. v.59,no.3. February 11, 1939. p.45. Part V--Wiring and lighting the farm buildings.

Electricity - Distribution.

Voltage regulation on rural lines. By C. T. Pearce. Electric journal. v.36,no.3. March, 1939. p.102-104.

Electricity on the Farm.

Electricity in agriculture. Rural electrification and electro-farming. v.14,no.166. March, 1939. p.193-194. Brief review of some of the more important applications of electricity to farm work.

Electricity in poultry production. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.143-144.

How much electricity? By R. U. Blasingame. Pennsylvania farmer. v.120,no.9. May 6, 1939. p.18. Results of series of tests on practical application of electricity on Cumberland county farms and in homes conducted by agricultural department of the Shippensburg High School in cooperation with Agricultural engineering department of Pennsylvania State College and assisted by local electric companies.

New ideas in farm electric appliances. Rural electrification and electro-farming. v.14,no.166. March, 1939. p.197. Poultry house floor scraper. Light traps for insects.

Rural electrification in Belgium. By Michel Deutch. Rural electrification and electro-farming. v.14,no.165. February, 1939. p.174-175.

Erosion Control.

Erosion and run-off control methods and equipment. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.138-139.

Principles of gully erosion in the Piedmont of South Carolina. By H. A. Ireland and others. Washington, U.S. Govt.print.off., 1939. 140p. "Literature cited": p.140-142. U.S. Department of agriculture. Technical bulletin no.633.

Erosion Control. (Cont'd).

Soil erosion and conservation in the United States. Engineering. v.147,no.3816. March 3, 1939. p.239-241.

Evaporation.

Determination of evaporation from land and water surfaces. By C. W. Thornthwaite and Benjamin Holzman. Monthly weather review. v.67,no.1. January, 1939. p.4-11.

Evaporation studies III. Ten years of evaporation at Wooster as measured with black and white atmometers. By J. D. Wilson. Ohio agricultural experiment station. Bimonthly bulletin. v.24,no.197. March-April, 1939. p.11-25.

Farm Buildings.

Emergency repairs for farm buildings. By Ivan D. Wood. Nebraska farmer. v.81,no.2. January 28, 1939. p.3,16.

Farm structures and ventilation. In Fifty-first annual report, 1938. Cornell university agricultural experiment station. Ithaca, N.Y., 1939. p.39-40.

Improved animal shelters. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.142.

Improved farm buildings and structural equipment. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.139.

Toward better farm buildings. By G. B. Hanson. Hoard's dairyman. v.84,no.6. March 25, 1939. p.180,189.

Farm Machinery and Equipment.

Better mechanical planting of field crops. In Report of the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.136.

Engineering outlook. Engineering. v.147,no.3819. March 24, 1939. p.347-349. X.--Agricultural machinery. Total imports of agricultural machinery amounted to 15,022 tons, valued at 1,130,005L., in 1938, compared with 17,835 tons, valued at 1,265,133L., in 1937. Of the 1938 total, tractors "not liable to motor-car duty on importation" accounted for 6,094 tons, valued at 571,879L., compared with 7,411 tons valued at 649,458L. Table III.-International exports of agricultural machinery. [Value L000's.] 1931-1938). Table IV.--International exports of agricultural machinery. Volume [tons]. 1931-1938).

Farm Machinery and Equipment. (Cont'd).

Farm machinery review. By Frank H. Slade. Rural electrification and electro-farming. v.14,no.165. February, 1939. p.178-179.

Farm machinery review. By Frank H. Slade. Rural electrification and electro-farming. v.14,no.166. March, 1939. p.202-203.

Farm machinery trials. In Fifty years of progress on Dominion experimental farms, 1886-1936. Ottawa, J. O. Patenaude... 1939. p.77.

Fast fade the ways and means of the past. Farm implement news. v.60,no.7. April 6, 1939. p.39-41.

Here's a new seed harvester. Washington farmer. v.64,no.7. March 30, 1939. p.21. Sketch shows mechanics of seed harvester.

Implements of the general farm. In Fifty-first annual report, 1938. Cornell university agricultural experiment station. Ithaca, N.Y., 1939. p.39.

Mechanical harvesting. In Report of the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.136-137.

Mechanised farming and the home production of food. Engineering. v.147,no.3819. March 24, 1939. p.349-350. Output of tractor and implement firms should be directed in first instance to production of replacements rather than to an increase in number of outfits available.

Mechanization displacing many farm laborers. Indiana farmers guide. v.95,no.8. April 22, 1939. p.14. Mechanization of farm involves more than purchase of tractor. It practically calls for reorganization of farm on different scale, acquisition of new equipment, and higher degree of planning. It also involves higher capital investment and greater dependence of farmer on credit resources or manufactured products. Commercial farmers, who are not in position to mechanize, face increasing difficulties resulting from competition of mechanized farms.

More efficient tillage methods and equipment. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.134-135.

New machines to aid farm folks in 1939 seasons. By Jim White. Western farm life. v.41,no.4. February 15, 1939. p.3,8.

Farm Machinery and Equipment. (Cont'd).

1938 farm equipment census. Better farm equipment and methods. v.11,no.9. May, 1939. p.4-5. Manufacture and sale of farm equipment and related products compared with years 1936 and 1937.

1939 Buyer's guide. Chicago, Ill., Farm implement news, 1939. 384p.

Prices of farm machinery. By O. C. Stine. Agricultural situation. v.23,no.5. May, 1939. p.10-11. Prices paid by farmers for mowers, hay racks, hay loaders and some other farm machines are twice as high as they were from 1910-14. Prices of one-horse walking plows, corn and cotton planters, riding cultivators, and binders are almost twice as high as they were 25 to 30 years ago. Prices of small gas engines, cream separators, and grain threshers, on other hand, have increased relatively little. Prices of automobiles and tractors are considerably lower than in pre-war days.

Report on the agricultural implement and machinery industry. Federal trade commission. Washington, U.S. Govt.print.off., 1938. 1176p. 75th Congress, 3d session. House document no.702. Part I. Concentration and competitive methods. Part II. Costs, prices, and profits.

Successful farmers must know modern machines. Western farm life. v.41,no.4. February 15, 1939. p.5. Illustrations.

Sugar cane implements through the years. By E. A. Maier. Sugar bulletin. v.17,no.16. May 15, 1939. p.8-10.

Tests of machines and methods. In Fifty years of progress on Dominion experimental farms, 1886-1936. Ottawa, J. O. Patenaude ... 1939. p.72.

Tractors and combines lead list in dollar volume; harrows and cultivators high numerically on manufacturers' sales list. Implement record. v.36,no.5. May, 1939. p.21.

Value of implements produced in 1938 drops 15.7 per cent. Implement record. v.36,no.5. May, 1939. p.20.

What's new in power farming. Nebraska farmer. v.81,no.5. March 11, 1939. p.5,35.

Farmhouses.

Better farm homes. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.139-140.

Farmhouses. (Cont'd).

Farm housing survey. Washington, U.S. Govt.print.off., 1939. 42p. U.S. Department of agriculture. Miscellaneous publication no.323.

Farmhouse planning. By H. B. White. Hoard's dairyman. v.84,no.6. March 25, 1939. p.179,188.

Fences, Electric.

Electric fence and pasture management. By M. G. Huber and R. F. Talbot. Orono, Me., 1939. 12p. University of Maine. College of agriculture. Extension service, Bulletin no.261.

What every dealer should know about electric fencing. By W. A. Whipple. Farm implement news, v.60,no.7. April 6, 1939. p.42-43.

Fertilizer Placement.

Fertilizer placement for potatoes. By G. A. Cumings and G. V. C. Houghland. Washington, U.S. Govt.print.off., 1939. 48p. "Literature citod:" p.47-48. U.S. Department of agriculture. Technical bulletin no.669.

Field trial of manure distribution. By W. H. Cashmore and others. Implement and machinery review. v.64,no.767. March 1, 1939. p.1093-1094. Trial described was carried out in connection with long-term research on manure distributors, which is being undertaken at Field Station of Institute for Research in agricultural engineering. Research is concerned only with broadcast distributors which, according to generally accepted ideas on subject, aim at distributing fertilizers as uniformly as possible; and its immediate object is to lay down and carry out standard tests which can be used both to measure relative accuracy of distribution of different machines and to trace cause of any particular faults which may be observed.

Methods of applying fertilizer; Recommendations of the National joint committee on fertilizer application, April 1938. Washington, D.C., National fertilizer association, 1939. 15p.

More efficient mechanical fertilizer placement. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington- U.S. Govt.print.off., 1939. p.135-136.

Fire protection.

Valuable for fire protection. Better farm equipment and methods. v.11,no.9. May, 1939. p.18-19. Electric water systems efficient as a means of fighting farm fires.

Flax.

Bibliography on flax. Compiled by D. W. Graf. Washington, U.S. Bureau of agricultural engineering 1938. 7p. Mimeographed.

Floods and Flood Control.

Floods of Ohio and Mississippi rivers, January-February 1937. By N. C. Grover. Washington, U.S. Govt.print.off., 1938. 746p. Processed. U.S. Geological survey. Water-supply paper no.838.

Floors.

Finishing your floors. Consumers' guide. v.6,no.1. April 15, 1939. p.6-8. Knowing rules to follow in finishing, refinishing, and maintaining surfaces can save effort and money.

Floors for farm buildings. By C. H. Christopherson. St. Paul, Minn., 1939. 1p. University of Minnesota. Agricultural extension division. Agricultural engineering news letter no.85.

Structural properties of a "Tilecrete" floor construction sponsored by Tilecrete floors, inc. Washington, U.S. Govt.print.off., 1939. 6p. U.S. National bureau of standards. Building materials and structures. Report BMS-16.

Structural properties of "Wheeling long span steel floor" construction sponsored by the Wheeling corrugating company. By H. L. Whittemore and others. Washington, U.S. Govt.print.off., 1939. 7p. U.S. National bureau of standards. Building materials and structures. Report BMS 15.

Flow of Air.

Flow of air and its distribution through ducts. By J. R. Zwickl. Heating and ventilating. v.36,no.4. April, 1939. p.51-53. Part 3--Elbows and miscellaneous resistances.

Flow of Water and Gases.

Design of an open-channel control section. By Karl R. Kennison. American society of civil engineers. Proceedings. v.65,no.5. May, 1939. p.763-770. In designing open channel to measure flow of water, shape of controlling section to produce any desired rating curve can be determined by definite mathematical relationship, expression of which is claimed to be new, and to have possibilities in application to practical problems. Analysis of problem is contained in paper. For example, if it is desired to modify a Venturi flume so that rating curve at given piezometer section immediately up stream from controlling throat will be predetermined convenient straight line, it can be done readily by method presented herein. Writer first outlines prin-

Flow of Water and Gases. (Cont'd).

ciples involved and arrives at mathematical expressions for shape of controlling section in terms of desired rating, and then illustrates application by solution of specific problems.

Energy theory of turbulent flow of liquids. By T. Blench. In Minutes of proceedings of the Punjab engineering congress, Lahore, 1938. Lahore, Mufid-I-'Am press, 1939. 73-87 o p.

Flow in pipes containing bottom deposits. By V. W. Willits. Public works. v.70,no.2. February, 1939. p.15-16. Diagram and tables given permit calculating for any such case as readily as for clean sewer.

Frost Protection.

Frost protection on cranberry bogs. By C. I. Gunness. In Annual report for the fiscal year ending November 30, 1938. Amherst, Mass., 1939. p.52. Massachusetts agricultural experiment station. Bulletin no.355.

Heating.

Design of vapor heating for a seven room residence. By Raymond B. Mitchell. Georgia "Ag Engineer". v.10. 1939. p.58-64.

Hotbeds, Electric.

Hotbed heating by electricity. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.144.

Hydraulics.

Historical resumé of the development of the science of hydraulics. By C. E. Bardsley. Stillwater, Okla., 1939. 40p. Oklahoma agricultural and mechanical college. Division of engineering. Publication no.39.

Hydroponics.

Bathtub gardening. By Frank J. Taylor. Popular mechanics magazine. v.71,no.5. May, 1939. p.730-733,128A-130A.

Nutrient solution methods of greenhouse crop production. By R. B. Withrow and J. P. Biebel. Lafayette, Ind., 1938. 20p. "Selected literature...": p.20. Purdue university. Agricultural experiment station. Circular no.232, rev.

Insulation.

Sound insulation of wall and floor constructions. By V. L. Chrisler. Washington, U.S. Govt.print.off., 1939. 31p. U.S. National bureau of standards. Building materials and structure. Report BMS 17.

Irrigation.

Irrigation for vegetables. By Paul Work. Market growers journal. v.64,no.10. May 15, 1939. p.251-253.

National irrigation policy its development and significance. Correspondence and papers exchanged between the Bureau of reclamation and Senator Carl Hayden... Washington, U.S. Govt.print.off., 1939. 72p. U.S. 76th Congress, 1st session, Senate document no.36.

Small and frequent applications of irrigation water are the most effective for production. By L. A. Serrano and C. J. Clavell. In Annual report of the agricultural experiment station, University of Puerto Rico, fiscal year 1937-38, San Juan, P.R., 1939. p.75.

Sprinkler irrigation use studied. Washington farmer. v.64,no.3. February 2, 1939. p.8. Operation and cost data reported by SCS.

Sprinkler rain. By Ben Maxwell. Electricity on the farm. v.12,no.5. May, 1939. p.11. Results show $580. profit from irrigating 4-1/2 acres of Ladino clover.

Lighting.

Good lighting for the home. Consumers' digest. v.5,no.3. March, 1939. p.58-60.

Lubrication.

Diesel engine lubricating oils. By U. B. Bray and others. Power plant engineering. v.43,no.4. April, 1939. p.262-263. Straight mineral oils have been found inadequate to cope fully with the many sided problem of modern Diesel lubrication. Various agents have been used to overcome these deficiencies and, before the summer meeting of the S.A.E., the authors outlined the action of soap-compounded oils used to give the needed detergency, film strength, oiliness and stability.

Mechanized farm. Lubrication. v.25,no.4. April, 1939. p.37-48. Lubrication of tractors and tractor-operated equipment.

Milk Houses.

Milk house. Hoard's dairyman. v.84,no.6. March 25, 1939. p.199.

Miscellaneous.

Catalog of the mechanical collections of the Division of engineering, United States National museum. By F. A. Taylor. Washington, U.S. Govt.print.off., 1939. 203p. U.S. National museum. Smithsonian institution. Bulletin 173.

Miscellaneous. (Cont'd).

Minutes of proceedings of the Punjab engineering congress, Lahore, 1938. Lahore, Mufid-I-'Am press, 1939. 240h p.

Statistical abstract of the United States, 1938. U.S. Bureau of census. Washington, U.S. Govt.print.off., 1939. 882p.

Motor Fuel.

Better use of tractors and engine fuels. In Report on the agricultural experiment stations, 1938. By J. T. Jardine and F. D. Fromme. Washington, U.S. Govt.print.off., 1939. p.132-134.

Diesel deposits as influenced by fuels and operating conditions. By J. R. MacGregor and W. V. Hanley. S.A.E. Journal. v.43,no.1. July, 1938. p.272-280. Tests demonstrated that engine designer has much greater control over quantity of fuel deposits formed than has either fuel refiner or engine operator.

Ignition quality of diesel fuels. By J. Riffkin. Engineering. v.147,no.3808. January 6, 1939. p.1-4.

Research on motor fuels. By Gustav Egloff. Columbus, Ohio, Ohio state university, 1939. 16p.

Motors, Electric.

Maintenance of A-C motors. By T. M. Johns. Southern power journal. v.57,no.3. March, 1939. p.36-39. Part I - Testing and checking. Article furnishes concisely and clearly essentials of electric motor maintenance for ready reference and use of engineers who have but recently been delegated such responsibility. Safe practice is emphasized.

Oil and Petroleum.

Black gold. By N. W. Ayer & son, inc. Farm implement news. v.60,no.6. March 23, 1939. p.30-31. How the petroleum industry in America has opened a natural treasure house for the filling of human needs.

Improvements in petroleum products over recent years. Lubrication. v.25,no.2. February, 1939. p.13-24.

Paints and Painting.

Inside wall paint for chemical laboratories (Heat and fume resisting enamel paint) Washington, D.C., 1937. 3p. Mimeographed. U.S. National bureau of standards. Letter circular no.489.

Plows and Plowing.

Disk plow. By H. B. Wall. Georgia "Ag Engineer". v.10. 1939. p.44-47. History and development. Types of machines now on market. Sizes, weights, and costs. Range of use of disk plow. Materials used in construction of disk plow. Power requirements for different sizes. Future possibilities.

Dynamic properties of soil. By F. A. Kummer. Agricultural engineering. v.20,no.3. March, 1939. p.111-114. VIII. Effect of certain experimental plow shapes and materials on scouring in heavy clay soils.

Five-tractor plow digs a six-foot furrow. Popular mechanics magazine. v.71,no.6. June, 1939. p.890. Lifts and turns five yards of soil at time, covering one-half acre per hour.

How to figure plowing costs. By I. W. Dickerson. Farmer-stockman. v.51,no.18. September 15, 1938. p.5.

Trabajo combinado del arado y del arado del subsuelo y su efecto sobre la estructura del suelo. By H. J. Hopen. Revista de la Asociacion rural del Uruguay. v.66,no.2-3. February-March, 1939. p.17. The joint work of the plow and the subsoil plow and its effect upon the structure of the soil.

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